

NOTES ON SOME NORTH AMERICAN ASCLEPIADS¹

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ASCLEPIODORA DECUMBENS WHEN TREATED AS AN ASCLEPIAS

The first results of my studies of the American Asclepiads were embodied in a "perspective" of the genera (Ann. Missouri Bot. Gard. 28:193-244. 1941), prominent within which was a drastic reduction of the segregate genera *Acerates*, *Asclepiodora*, *Solanoa*, *Podostigma*, and many others, to *Asclepias* L. That treatment was intended as a reformation of the generic lines, and although numerous illustrative changes of nomenclature were introduced, keys to all the included species, and their synonymy, were not provided. As I pointed out at the time, appropriate combinations under *Asclepias* already were available, with relatively few exceptions, some of which were offered thereupon. One case which I neglected, however, was that of the familiar "Antelope-horns" of the southwestern States, *Asclepiodora decumbens* (Nutt.) A. Gray. In the interval since the 1941 publication, I have received a number of requests for the correct name of this plant when considered under *Asclepias*, from botanists who are aware of the earlier homonym *A. decumbens* L.

At first glance, an early name for *Asclepiodora decumbens* seems to be provided in *Asclepias brevicornu* Scheele (Linnaea 21:756. 1848) as indicated arbitrarily by 'Index Kewensis', but further consideration shows that this disposition probably is incorrect. The description of Scheele's plant, *Römer s. n.* from the neighborhood of New Braunfels, Texas, paradoxically points to synonymy with the fortunately earlier *A. longicornu* Benth., which is common in the same vicinity. Association of *A. brevicornu* with *A. longicornu* is suggested strongly by the following excerpts from the original diagnosis of the former: "Corolla . . . laciniae . . . primo patulae, dein reflexae. Corona . . . cuculli speciosi aurantiaci falcati oblongo apice rotundati medio utrinque auriculati processum brevissimum includentes gynostegio longiores . . ." Scheele further remarks concerning the chief distinguishing characters of his species: "Eine prachtige, durch das sehr kurze Horn und die schönen, sichelförmigen, beiderseits geörhten Klappen ausgezeichnete Art, mit Keiner andern zu verwechseln!" It is obvious, at least, that Scheele did not consider his *A. brevicornu*, indicated by 'Index Kewensis' as a synonym of *Asclepiodora decumbens*, as at all closely related to the next species that he proceeded to describe, *A. longipetala*, based upon a Lindheimer collection from New Braunfels fortunately available in the herbarium of the Missouri Botanical Garden. This happens to be the common plant known as *Asclepiodora viridis*

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(Walt.) A. Gray (*Asclepias viridis* Walt.), which anyone will grant to be extremely closely related, indeed, to *Asclepiodora decumbens*.

An examination of the diagnosis of *Asclepias brevicornu* shows further the impossibility of classifying it as an *Asclepiodora*, particularly in the characters of the reflexed corolla and the "schönen, sichelförmigen, beiderseits geörhten Klappen [hoods]." These immediately place the plant as a member of Kunth's old genus *Otaria*, exemplified by such species as *A. longicornu*, *A. nyctaginifolia*, *A. Emoryi*, and *A. subulata*. Only the first of these could have been collected in the vicinity of New Braunfels, with the possible exception of *A. Emoryi*, the hoods of which are too short to coincide with Scheele's diagnosis. The discrepancy of Bentham's and Scheele's names apparently for the same species is explained by the allusion of the former to the strikingly elongate hoods and of the latter to the short, adnate horns.

Since *Asclepias brevicornu* Scheele is not available as a name for *Asclepiodora decumbens* when treated as an *Asclepias*, and since none other exists, it becomes necessary to coin a new name (in allusion to the popular name):

ASCLEPIAS capricornu Woodson, nom. nov.

Anantherix angustifolia Raf. Atl. Journ. 146. 1832, non *Asclepias angustifolia* Schweig.

Anantherix decumbens Nutt. in Trans. Amer. Phil. Soc. 5:203. 1837, non *Asclepias decumbens* L.

Anantherix Nuttalliana G. Don, Gen. Hist. 4:146. 1838, nec *Asclepias Nuttalliana* Tor., nec A. Gray.

Acerates decumbens (Nutt.) Dcne. in DC. Prodr. 8:522. 1844.

Asclepiodora decumbens (Nutt.) A. Gray, in Proc. Amer. Acad. 12:67. 1876.

Asclepias decumbens (Nutt.) K. Sch. in Engl. & Prantl, Nat. Pflanzenfam. 4²:239. 1895, non L.

Asclepias capricornu occupies a wide territory of the southwestern United States from central Kansas to east-central Texas and westward to Arizona and southern Nevada. Over this area it is not a phenotypic unit. Preliminary studies have satisfied me of the presence of well-defined continuous obliquely stepped clines (J. S. Huxley, in Bijdr. Dierk. 27^E:494. 1939) of an east-west direction in at least four essential characters of the plants. These are found in the leaf base, presence or absence of a naked peduncle, hood color, and follicle surface. Unfortunately, three of these are essentially qualitative in nature. However, when assigned arbitrary scores and plotted, a biologically significant discontinuity is discovered for all four characters centering in western Texas. In the zone of intergradation, the cline is conspicuously steep, and, as I have said, occurs at almost the same gradient for all four characters.

Such being the case, it appears appropriate to indicate two subspecies: an eastern (including the typical element of the species) characterized by obtuse leaf bases, sessile inflorescences (i. e., immediately subtended by leaves), light-colored hoods, and more or less spiny follicles, and a western, characterized by narrowly acute leaf bases, pedunculate inflorescences, dark-colored hoods, and

smooth follicles. I expect to investigate the relationship of these subspecies more fully when conditions permit.

ASCLEPIAS CAPRICORNU ssp. **capricornu** Woodson, ssp. nov.

Speciei elementum typicum; foliis basi vulgo obtusis nisi truncatis; inflorescentiis sessilibus vel subsessilibus; coronae cucullis vulgo pallidis; folliculis plus minusve spinosis.

ASCLEPIAS CAPRICORNU ssp. **occidentalis** Woodson, ssp. nov.

Plantae speciei habitu congruentes sed foliis angustioribus basi plerisque anguste acutis; inflorescentiis plus minusve valde pedunculatis; coronae cucullis plus minusve saturate purpureis; folliculis laevibus.—Exemplum typicum: NEVADA: CLARK: Pine Canyon. Roadside near stream. With *Juniperus utahensis* and *Pinus monophylla*. Alt. 1800 m. May 24, 1940. I. W. Clokey 8613 (Herb. Missouri Bot. Gard., TYPUS).

(To be continued)